

## REMARKS

Claims 1 through 8 continue to be in the case.

1. Applicants election with traverse of Group I in Paper No. 10 is acknowledged in the Office Action. The traversal is on the ground(s) that the method cannot be used to make another and materially different product such as a crankshaft since claim 8 specifically states "a method for building a camshaft" and the product as claimed cannot be made by another and materially different process such as high pressure deformation. This is not found persuasive because assuming arguendo that the process steps recited in claim 8 may not be used to make other and materially different product such as a crankshaft, however, the product as claimed can be made by another and materially different process such as high pressure deformation of a plunger inside the pipe 1 to expand the pipe 1 radially in order to join or connect the pipe 1 with the cam 3. If applicants do not understand how high pressure deformation can provide, e.g., the connection between the pipe and the cam,

applicants are respectfully urged to review numerous patents classified in Class 29, subclass 888.1 of the Office such as US Patent No. 5,038,450 and EP 320,789 issued to Swars, cited in parent application. Please also see other methods that may be used to produce the product as claimed on pages 2 -5 of applicant's original specification.

Applicants respectfully raverse. Expansion of a plunger will give a different product as compared to the instant invention product with a conversion layer.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification as shown on page 2 of the Restriction requirement on July 3, 2000, restriction for examination purposes as indicated is proper pursuant to M.P.E.P. 806.05(f). The requirement is still deemed proper and is therefore made FINAL.

Reconsideration of the requirement is respectfully requested.

2. Claim 8 stands withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 10.

3. The information disclosure statement filed July 3, 2000 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all

certification requirements for statements under 37 CFR 1.97(e). See MPEP ° 609 C(1).

Applicants have stated that these references are deemed to reiterate the state of the art already present in this application and consequently, they do not need new features to be presented compared to the references already of record.

4. The listing of references in the specification (e.g., page 5) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP ° 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper. " Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Applicants' attorney is contacting the applicants to resolve this question.

5. The Preliminary Amendment filed on February 23, 2000 (Paper No. 9) has been partially entered. For example, the insertion on page 6, line 11 of the specification has not been entered for the reasons stated below.

6. The Preliminary Amendment filed on February 23, 2000 (Paper No. 9) is objected to under 37 C.F.R. 1. 121 because applicant did not precisely point out where the deletion or insertion is to be made. For example, applicant instructed that:

(a) "Page 6, line 11, please delete 'piece 4' and substitute therefor --pieces 4 and 7--. However, page 6, line 11 of the specification does not have the words "piece 4;" and

(b) "Page 6, line 12, after "pressed in." and before the insert of the amendment dated January 12, 1999." However, since the instant application is filed under 37 C.F.R. 1.60, therefore, the Amendment dated January 12, 1999 in the

parent application Serial Number 09/016,597 was not carried over to the instant application.

Applicants are providing corrections to obviate the allegations of the Office Action.

7. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on July 31, 2000 have been partially approved.

(A) New Fig. 4 has been disapproved because:

(a) new Fig. 4 introduces new matter such as the end piece 4 as now shown. The original Fig. 2 shows that the inner diameter of the pipe 1 is varied: (1) at the junction of the end piece 4 and the pipe 1 as shown by applicant's phantom line, and (2) at referential numeral 1 (see attached Exhibit). However, Fig. 4 shows that the inner diameter of the pipe 1 is constant. The original disclosure does not convey the concept that the inner diameter of the pipe 1 is

constant, thus, it is unsupported by the record as filed. In re Anderson, 176 U.S.P.Q. 331 (CCPA 1973), and

(b) new Fig. 4 is inconsistent with the description in Paper No. 9. The insertion on page 6, line 12 of the specification, states that the outer diameter of the end piece 4 is slightly larger than an inner diameter of the pipe 1. However, Fig. 4 shows that the outer diameter of the end piece 4 is equal to an inner diameter of the pipe 1.

The undersigned attorney is in contact with the applicants to find a resolution to the Examiner's objection to Fig. 4.

(B) The corrected Fig. 3 has been disapproved since it introduces new matter. The original drawings do not show the bearing rings. The corrected Fig. 3 now shows the bearing 6 which is identical to the cam 3. The showing and description of a specific type of bearing within a full spectrum of possible bearings is considered under the present disclosure to be new matter. Cf, In re Smith, 173 U. S.P.Q. 679 (CCPA

1972) and *Exparte George*, 230 U. S.P.Q. 575, 578 (Bd. Pat. App. & Inter. 1986).

The undersigned attorney is in contact with the applicants to find a resolution to the Examiner's objection to Fig. 3.

(C) The corrected Fig. 1 has been approved.

Applicants appreciate the approval of the revised Fig. 1.

8. The original drawings are objected to because: (a) the drawings should show the plane upon which a sectional view such as Fig. 1 is taken; and (b) each part of the invention such as the outer diameter of the end piece should be designated by a referential numeral or character. Correction is required.

The undersigned attorney is contacting the applicants to provide the changes requested by the examiner.



9. The amendment filed February 23, 2000 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S. C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is, e.g., as follows:

(A) the insertion in line 9 on page 6 of the specification. The original disclosure does not convey the concept that the cam 3 shown in Fig. 1 has an opening diameter slightly smaller than an outer pipe diameter, thus, it is new matter. In re Anderson, supra;

This insertion is now being deleted.

(B) the insertion in line 12 on page 6 of the specification. The original disclosure does not convey the concept that the outer diameter of the end piece 4 is slightly larger than an inner diameter of the pipe 1, thus, it is new matter. In re Anderson, supra; and

The insertion is now being deleted.

(C) the insertions in lines 13 and 14 on page 6 of the specification. The original drawings do not show the bearing

rings. The corrected Fig. 3 now shows the bearing 6 which is identical to the cam 3. The showing and description of a specific type of bearing within a full spectrum of possible bearings is considered under the present disclosure to be new matter. Cf, In re Smith, 173 U.S.P.Q. 679 (CCPA 1972) and Exparte George, 23Q U.S.P.Q. 575,578 (Bd. Pat. App. & Inter. 1986).

The insertion is now being deleted.

Applicant is required to cancel the new matter in the reply to this Office action.

The material has been cancelled in the present response.

10. The following is a quotation of the first paragraph of 35 U. S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use

the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Amended claim 1 now calls for, inter alia, "a cam opening diameter slightly smaller than the outer pipe diameter" and "an inner ring diameter slightly smaller than the outer pipe diameter." However, the above limitations were not disclosed on the filing date. To the contrary, on the filing date, applicant's Figs. 1-3 show that: (a) the cam opening diameter is equal to the outer pipe diameter, and (b) the inner ring diameter is equal to the outer pipe diameter. The original disclosure does not convey the concepts "a cam opening diameter slightly smaller than the outer pipe diameter" and "an inner ring diameter slightly

smaller than the outer pipe diameter," thus, they are new matter. In re Anderson, supra.

Claim 1 is being amended to overcome the rejection.

Similarly new claims 6 and 7 claim "cams and bearing rings having an inner diameter smaller than the outer pipe diameter." However, the above limitations were not disclosed on the filing date. To the contrary, on the filing date, applicant's Figs. 1-3 show that the cams and bearing rings have an inner diameter equal to the outer pipe diameter. The original disclosure does not convey the concept "cams and bearing rings having an inner diameter smaller than the outer pipe diameter," thus, it is new matter. In re Anderson, supra.

Claims 6 and 7 are being amended to obviate the rejection.

13. Claims 1-7 are rejected under 35 U.S. C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term such as "slightly smaller" in claim 1 is a relative term which renders the claim indefinite. The term "slightly smaller" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention, e.g., it is unclear how small the cam opening diameter relative to the outer pipe diameter is considered to be "slightly smaller."

The objectionable language "slightly smaller" has now been cancelled.

The term such as "conventional compression joints" in claims 1, 6 and 7 is vague and indefinite since it is not clear what type of compression joints are considered to be "conventional".

The term "conventional" has now been taken out of claims 1, 6 and 7.

17. Claims 6 and 7, as best understood, are rejected under 35 U. S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over East German Patent No. 0152 972 (Pat.'972) described on page 3 et seq. of applicant's specification.

Applicants respectfully traverse.

The present invention is distinguished over the reference by:

a crystalline phosphate coating;  
a light weight cam; and  
a compression fitting.

The Office Action refers to 35USC 102(b) as follows:

Regarding claims 6 and 7, Pat.'972 teaches a built-up camshaft comprising a pipe coated with a crystalline phosphate coating or a cement on an outer cylindrical surface and having outer and inner pipe diameters; cams and bearing rings (i.e., "other parts on the pipe" described on page 3 of applicant's specification) having an inner diameter and end pieces (i.e., "other parts on the pipe")

having an outer diameter connected by means of compression joints. The cams and bearing rings of Pa.'972 inherently have an inner diameter smaller than the outer pipe diameter and end pieces of Pat.'972 inherently have an outer diameter bigger than the inner pipe diameter in order to be slipped and compressed to joint them together.

The undersigned attorney is in contact with the applicants to resolve the questions concerning the diameters of the pipes.

The Office Action refers to 35 USC 103

Pat.'972 teaches the invention substantially as claimed. However, Pat.'972 does not explicitly teach the dimensions of the cams, bearings, end pieces and pipe, etc.

It is common knowledge in the art according to the Office Action to change the dimensions of the cams, bearings, end pieces and pipe, etc. of Pat.'972 such that the cams and bearing rings of Pa.'972 have an inner diameter smaller than the outer pipe diameter and end pieces of Pat.'972 have an

outer diameter bigger than the inner pipe diameter in order to increase the friction resistance among the cams, bearings, end pieces and pipe to form compression joints. See stare decisis about the change in size/proportion cited in M.P.E.P. 2144.04.

The undersigned attorney is contacting the applicants to resolve the question of the variou diameters.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the dimensions to change the dimensions of the cams, bearings, end pieces and pipe, etc. of Pat.'972 such that the cams and bearing rings of Pa.'972 have an inner diameter smaller than the outer pipe diameter and end pieces of Pat.'972 have an outer diameter bigger than the inner pipe diameter in order to increase the friction resistance among the cams, bearings, end pieces and pipe to form compression joints as suggested by common knowledge in the art.

Applicants respectfully traverse. The refereences recited were produced by experts in the field and it appears to be preposterous to assume that a person of ordinary skill



in the art would be able to improve upon the constructions of the experts without some guidance.

19. Claims 1-7, as best understood, stand rejected under 35 U. S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Seim et al. (Publication "Erhöhung der Sicherheit gehauter. . ." cited in EPO Search Report in the parent application).

The Office Action refers to 35 USC 102(a) as follows:

Regarding claim 1, Seim teaches a built-up camshaft comprising a pipe coated by a joint coating on outer and inner cylindrical surfaces (Ibid., Table on page 289 and Fig. 12 on page 290) and having outer and inner pipe diameters; and having cam places, bearing ring places and pipe end places (e.g., Fig. 1, page 284 and Fig. 5 page 286); cams formed as rings with outer and inner cylindrical flanges (Fig. 12) and provided with the joint coating on an inner cylindrical surface of the inner flange and having a cam opening diameter. The cam opening diameter

inherently is slightly smaller than the outer pipe diameter and the inner ring diameter is inherently slightly smaller than the outer pipe diameter (Fig. 6, page 287 in order to be slipped and compressed to joint them together.

The undersigned is expecting further instructions relating to the diameter question from the applicants.

Regarding claims 6 and 7, Seim teaches a built-up camshaft comprising a pipe coated with a crystalline phosphate coating or a cement on an outer cylindrical surface and having outer and inner pipe diameters; cams and bearing rings (Fig. 9 and Table on page 289, and Fig. 12) having an inner diameter and end pieces having an outer diameter connected by means of compression joints. The cams and bearing rings of Seim inherently have an inner diameter smaller than the outer pipe diameter and end pieces of Seim inherently have an outer diameter bigger than the inner pipe diameter in order to be slipped and compressed to joint them together.

Again, the undersigned is awaiting further instructions from the applicants regarding the question of diameters.

The Office Action refers to 35 USC 103(a) as follows:

Regarding claims 1-7, Seim teaches the invention substantially as claimed. See the rejection under 35 USC 102(a) above. However, Seim does not explicitly teach the dimensions of the cams, bearings, end pieces and pipe, etc. as claimed

It is common knowledge in the art to change the dimensions of the cams, bearings, end pieces and pipe, etc. of Seim such that, e.g., the cams and bearing rings of Pa.'972 have an inner diameter smaller than the outer pipe diameter and end pieces of Pat.'972 have an outer diameter bigger than the inner pipe diameter, etc. in order to increase the friction resistance among the cams, bearings, end pieces and pipe to form compression joints. See stare decisis about the change in size/proportion cited in M.P.E.P. 2144.04.

Applicant urges that the inventors Seim et al. of the reference patent are experts in the field and it cannot be expected that a person of ordinary skill in the art will be

able to make suitable modification to their teaching without any suggestions to that effect from inside the patent document.

It would have been obvious to one having ordinary skill in the art at the time the invention was made according to the Office Action to change the dimensions to change the dimensions of the cams, bearings, end pieces and pipe, etc. of Seim such that the cams and bearing rings of Seim have an inner diameter smaller than the outer pipe diameter and end pieces of Seim have an outer diameter bigger than the inner pipe diameter, etc. In order to increase the friction resistance among the cams, bearings, end pieces and pipe to form compression joints as suggested by common knowledge in the art.

Applicants respectfully disagree.

Applicants submit that the prior art made of record neither anticipates nor renders obvious the present invention.

Reconsideration of all outstanding rejections is respectfully requested.

All claims as presently submitted are deemed to be in form for allowance and an early notice of allowance is earnestly solicited.

Respectfully submitted,

Herbert Gropp et al.

By:



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